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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,608	02/11/2002	Vadakkedathu T. Rajan	YOR920020050	5945
7590	04/20/2009		EXAMINER	
IBM CORPORATION			BROWN JR, NATHAN H	
INTELLECTUAL PROPERTY LAW DEPT.				
P.O. BOX 218			ART UNIT	PAPER NUMBER
YORKTOWN HEIGHTS, NY 10598			2129	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/073,608	RAJAN ET AL.	
	Examiner	Art Unit	
	NATHAN H. BROWN JR	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE (3) MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 26 February 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 6-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 19-22 is/are allowed.

6) Claim(s) 6-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

Examiner's Detailed Office Action

1. This Office Action is responsive to the communication for application 10/073,608, filed February 26, 2009.
2. Claims 6-22 are pending. Claims 6 and 11 are currently amended. Claims 7-10 and 12-18 are previously presented. Claims 19-22 are new.
3. After the previous office action, claims 6-18 stood rejected.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 6-10 are rejected under 35 U.S.C. 101 because the claimed invention has no practical application.

Amended independent claim 6 recites a "computer readable storage medium including computer instructions executable on a computer for carrying out a method of characterizing objects with characteristics based on a prior partial run of a program from which said objects were generated" having a final step "f) produce a subsequent set of objects comprising the characterization information selected in step e)". Examiner considers objects (per se) with non-specific characteristics based on prior runs of a non-specific program from which the objects were generated to be memory locations having no specific and credible real-world content (i.e., memory locations containing abstractions). The objects produced in step f) are considered to be abstractions, therefore the "computer readable storage medium including computer instructions executable on a computer" is considered to produce no specific and credible real-world (i.e., practical) result. Therefore, claim 6 is considered non-statutory under 35 U.S.C. 101. Claims 7-10 recite further algorithmic and abstract data type limitations to claim 6, but fail to cure the deficiencies of claim 6. Thus, claims 6-10 are considered non-statutory under 35 U.S.C. 101.

In responding to this rejection the applicant should point to the disclosure for support of how there is a real world non-preemptive practical application disclosed.

The claims must provide a tangible result, and there must be a practical application, by either

- 1) transforming (physical thing) or
- 2) by having the FINAL RESULT (not the steps) achieve or produce a useful (specific, substantial, AND credible), concrete (substantially repeatable/non-unpredictable), AND tangible (real world/non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended. A claim that recites a computer that solely calculates a mathematical formula is not statutory.

However, the portions of the opinions in State Street and AT&T relying solely on a "useful, concrete and tangible" result analysis *should no longer be relied on*. *Ex parte Bilski, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008, Maj. op. at 20 n,19)*. This decision did NOT state a tangible result was no longer needed.

The court has said that there's a two-pronged test to determine whether a software or method patent is valid: (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. In other words, pure software or business method patents that are neither tied to a specific machine nor change something into

a different state are not patentable. *Ex parte Bilski*, Appeal No. 2007-1130 (Fed. Cir. October 30, 2008).

The machine-or-transformation test is a two-branched inquiry; an applicant may show that a process claim satisfies §101 either by showing that his claim is tied to a **particular** machine, or by showing that his claim transforms an article. *See Benson*, 409 U.S. at 70. Certain considerations are applicable to analysis under either branch. First, as illustrated by *Benson* and discussed below, the use of a specific machine or transformation of an article must impose **meaningful limits on the claim's scope** to impart patent-eligibility. *See Benson*, 409 U.S. at 71-72. Second, the involvement of the machine or transformation in the claimed process must **not** merely be insignificant extra-solution activity. *See Flook*, 437 U.S. at 590. (See In re Bilski, 88 USPQ2d at 1396, emphasis added.)

6. Claims 11-18 are rejected under 35 U.S.C. 101 because the claimed invention fails the machine transformation test and is clearly not tied to a particular machine, only a general purpose machine.

Amended independent claim 11 recites a "computer-implemented method of determining a set of characteristics of objects that on a profiling run would have resulted in objects having a property determined by a previous run". The final result of the method is "f) producing a subsequent set of objects comprising the characterization information selected in step e)." Claim 11 does not satisfy the machine-prong of the machine-or-

transformation test of *In re Bilski*, 2007-1130. Clearly, the "computer-implemented method of determining a set of characteristics of objects" falls within the judicial exception of algorithm. However, such a method is **not** considered to be limited to a specific practical application of a judicial exception since the objects, computer program and "previous run" are non-specific. Further, the final step of "f) producing a subsequent set of objects comprising the characterization information selected in step e)" is considered to merely produce a set abstract objects, unlike the tangible result of calculating a final share price in *State Street*, which is representative of a real-world state of a real-world entity (i.e., the value of a stock). Therefore claim 11 is considered non-statutory under 35 U.S.C. 101. Claims 12-18 provide further algorithmic and abstract data type limitation to claim 11 but fail to cure the deficiency of claim 11. Therefore, claims 11-18 are considered non-statutory under 35 U.S.C. 101.

Allowable Subject Matter

7. Claims 19-22 are allowed since the best prior art, *Kimelman et al. (Kimelman)* (PGPUBS: 2002/0111697), does not address the various aspects of "placing orders for products against inventory" recited in independent claim 19.

Response to Arguments

8. Applicant's arguments filed February 26, 2009 have been fully considered but they are not persuasive.

Rejection of Claims 6-10 Under 35 U.S.C. §101

Applicant(s) argue(s) :

The Office Action rejected claims 6-10 under 35 USC §101 as being directed to non- statutory subject matter. The Examiner's argument centers on the test for being statutory by producing "a useful, concrete and tangible result" as indicated in State St. Bank & Trust Co. v. Signature Fin. Group, Inc., 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998). In the case of In re Bilski, Case 2007-1130, page 20, (Fed. Cir, Oct 30, 2008), the Federal Circuit held that the arguments of State Street will no longer be considered dispositive of the issue of subject matter patentability. However, the Final Office Action maintains the rejection under 35 U.S.C. § 101 on the basis that the claimed invention allegedly has no practical application. In an Advisory Action the Examiner admitted that the claims were tied to a machine (computer), but based on a memorandum dated May 15, 2008 (before the date of the Bilski decision) the test for compliance with 35 USC § 101 still requires providing a real-world result. Although Applicant does not interpret Bilski as providing this test in order to advance prosecution, the claims have been amended to specifically provide a useful result - producing a new set of objects.

Even though Applicant believes that the rejection under section 101 used the wrong test, to advance prosecution, claims 6 and 11 have been amended to require that the method produces a new set of objects.

Examiner disagrees. What is a human going to do with theses "new set of objects"? Are they going to sit in a general purpose machine? What are they used for? Better yet what are they, a bunch of digital one s and zeros? Amended independent claims 6 and 11 still do not recite a tangible real-world result as the new set of objects recited as being produced are non-specific 'objects' generated by runs of non-specific programs addressing no credible and specific real-world problem domain. Claim 6 recites a computer related manufacture (computer readable storage medium), so *In re Bilski* doesn't apply to its rejection under 35 USC §101. However, the test for being statutory by producing "a useful, concrete and tangible result" as indicated in *State St. Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) does. Claim 11 recites a "computer-implemented method" so *In re Bilski* does apply.

Conclusion

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this action is set to expire THREE MONTHS from the mailing date of this action.

In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan H. Brown, Jr. whose telephone number is 571-272- 8632. The examiner can normally be reached on M-F 0830-1700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Nathan H. Brown, Jr./
Examiner, Art Unit 2129
April 17, 2009
/David R Vincent/
Supervisory Patent Examiner, Art Unit 2129